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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/921,875	08/06/2001	Hidetada Nagaoka	1163-0351P	7131
2292	7590	01/27/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			VILLECCO, JOHN M	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/921,875

**Applicant(s)**

NAGAOKA ET AL.

**Examiner**

John M. Villecco

**Art Unit**

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7, 8 and 13 is/are rejected.
- 7) ☒ Claim(s) 6 and 9-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/6/01 and 2/4/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:

- On page 2, line 15 and page 10, line 1, applicant recites the word “co-related”.

This appears to be a typographical error. It appears that the proper word should be – correlated –.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-3, 5, 7, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kasahara et al. (U.S. Patent No. 6,710,818).**

4. Regarding *claim 1*, Kasahara discloses a flicker detection and correction apparatus for an imager. More specifically, Kasahara discloses a solid-state imaging device (93), an amplifier (94), and an automatic level adjusting section for regulating the level of an image signal by controlling the charge storage time of the imaging device and the gain of the amplifier. The automatic level adjusting section is composed of the flicker detection circuit (91) and the flicker

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compensation signal generation unit (92). See Figure 16 and column 15, line 56 to column 17, line 45. The flicker detection circuit (91) serves as both the index calculating portion and the flicker detecting section as claimed. The flicker detection circuit (91) includes an averaging circuit (3) and a dividing circuit (4) for calculating an inter-frame variation of accumulation values. The memory (2) serves as the accumulating section. See column 8, lines 41 to column 9, line 58. The flicker judging unit (5) serves as the flicker detecting section, which acts in response to the output from the averaging and dividing units. As disclosed in column 16, lines 14-45, the flicker compensation signal generation unit (92) initially sets a 50 Hz mode. If the detected flicker is a 60 HZ signal the image is placed in a 60 Hz mode. As shown in column 17, lines 8-27, the charge storage time of the 50 Hz mode and the 60 Hz mode is an integer multiple of half a reciprocal of the frequency. The fact that Kasahara discloses that changing from one mode (50 Hz mode) to another (60 Hz mode) shows that a switching section would inherently be implemented in the imager.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

5. As for **claim 2**, as mentioned in column 17, lines 8-28, Kasahara discloses setting the charge storage time to an integer multiple of 1/100 of a second or setting the charge storage time to an integer multiple of 1/120 second.

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6. With regard to *claim 3*, Kasahara discloses that the memory (2) accumulates values over a set number of frames. The averaging circuit (4) calculates the average (interpreted to be the index) by accumulating variation of values of individual frames over a predetermined number of frames.

7. Regarding *claim 5*, the flicker judging circuit (5) compares its output with threshold values and controls the switching operation in response to the compared result. See column 9, lines 1-50.

8. As for *claim 7*, Kasahara discloses an embodiment in which a threshold value processing circuit (82) is used to calculate different threshold values for the comparing circuit to use. See column 15, lines 10-43.

9. *Claim 13* is interpreted to be a broad method claim that is substantively equivalent to claim 1. Please see the discussion of claim 1 above.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasahara et al. (U.S. Patent No. 6,710,818) in view of Tomaszewski (U.S. Patent No. 6,519,002).**

12. Regarding *claim 4*, as mentioned above in the discussion of claim 3, Kasahara discloses all of the limitations of the parent claim. However, Kasahara fails to specifically disclose that

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the flicker detecting section compares the index of the first setting section with the index of the second setting section in order to control the switching operation. More specifically, Tomaszewski discloses setting the capture frequency to a first clock and calculating the means and standard deviation of a first set of frames. Then the capture frequency is changed to a second frequency and a mean of standard deviation of a second set of frames is calculated. Based on a comparison of the two parameters between the different capture frequencies, a final capture frequency is set. See Figure 4 and column 5, line 1 to column 6, line 63. Kasahara teaches that if a situation arises in which the comparing circuit does not obtain one of the desired results, an “unknown” is returned for determination of flicker (col. 9, lines 39-40). Using Tomaszewski’s invention, an accurate determination is always made as to the frequency of flicker. Therefore, one of ordinary skill in the art would have been inclined to compare the index of one frequency to the index of another frequency as in Tomaszewski, so that an accurate determination of flicker is always obtained.

**13. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasahara et al. (U.S. Patent No. 6,710,818).**

14. Regarding claim 8, as mentioned above in the discussion of claim 7, Kasahara discloses all of the limitations of the parent claim. Additionally, Kasahara discloses the ability to adjust the threshold values in accordance with a shutter speed. However, Kasahara fails to explicitly disclose the use of a look-up table in order to look up threshold values corresponding to the image signal. Official Notice is taken as to the fact that it is well known in the art to use a look-up table to store and eventually change settings in a camera. Look-up tables serve as an efficient

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way of setting data without having to perform complex calculations. Therefore, it would have been obvious to one of ordinary skill in the art to enable the camera of Kasahara to look up the new threshold values in a look-up table in order to change them without performing complex calculations.

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

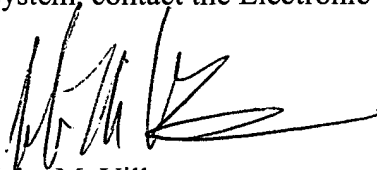
- Nakaya et al. (Japanese Publ. No. 10-098650 A) discloses adjusting the gain and shutter speed in accordance with a light frequency.
- Oda et al. (European Patent Publ. 1024660 A2) discloses controlling gain and shutter speed in accordance with an average luminance level.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (703) 305-1460 (Crystal City) or (571) 272-7319 (Carlyle). The examiner can normally be reached on Monday-Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929 (Crystal City) or (571) 272-7308 (Carlyle). The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John M. Villecco  
January 18, 2005



TUAN HO  
PRIMARY EXAMINER